

# **COMPACT LOW COST CURRENT SENSOR AND CURRENT TRANSFORMER CORE HAVING IMPROVED DYNAMIC RANGE**

## **Abstract of Disclosure**

A current sensor and current transformer for monitoring electrical current is provided with a magnetic core having a mixture of magnetic materials to provide a low cost design in a compact configuration with an expanded dynamic range. The mixed material core can be fabricated either from stamped laminations or from coil stock and may include an air gap for activating a magnetic flux sensor. Multiple core configurations, including Figure-O, Figure-C, and Figure-8, having mixed material construction are disclosed and offer advantages over non-mixed material cores where dynamic range and frequency response characteristics are a consideration.

## Figures

Figure 1: A diagram illustrating the structure of a document. It shows a vertical sequence of elements: a header, a title, a subtitle, a list of figures, and a list of tables. The list of figures is the primary focus of this section.